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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/767,850

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Miguel Peeters

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7590 02/27/2007
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EXAMINER

WANG, TED M

ART UNIT

PAPER NUMBER

2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/767,850	Applicant(s) PEETERS ET AL.	
	Examiner Ted M. Wang	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7 and 10 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 November 2006 has been entered.

Response to Arguments

2. Applicant's arguments, filed on 11/29/2006, with respect to claims 1-3, 5, 7 and 10 have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments, filed on 11/29/2006, with respect to the rejection(s) of claim(s) 1, 2, 5, 7 and 10 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Reusens et al. (US 6,351,473).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-3, 5, 7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Reusens et al. (US 6,351,473).

- With regard claim 1, Reusens et al. discloses a constellation information transmitting arrangement for a multi-carrier transmitter or a multi-carrier receiver of a multi-carrier system (Fig.1 and column 7 lines 22-28), said arrangement comprising:

- means for producing carrier constellation information indicative for constellations where respective carriers will be modulated with by said multi-carrier transmitter (column 8 lines 60-65), and

- means for transmitting said carrier constellation information (Fig.2 element T' and column 8 lines 25-65), and

- wherein said means for producing said carrier constellation information (column 8 lines 60-65) is adapted to group carriers in subsets (column 8 lines 33-47 and column 9 lines 7-35, where subcarriers f1 and f3 are in one subset and f2 and f4 are in another subset) and to produce for at least one respective subset a

limited set of parameter values from which constellations of each carrier (Fig.5 and column 10 lines 1-48, where the parameter values are bits allocation value, transmit energy level or gain and carrier identification information) in said at least one respective subset can be derived through interpolation (Fig.3 and column 8 lines 11-24 and column 10 lines 19-67).

- With regard claims 2 and 3, Reusens et al. further discloses wherein said limit set of parameter values comprises of a first number of bits (column 9 lines 7-35 and column 10 lines 1-17) and a first gain value and a second gain value (column 10 lines 1-17, where the gain value or energy level is 0.69 dB for f_1 and 0.75 dB for f_3).
- With regard claim 5, Reusens et al. further discloses means to produce a description of said at least one respective carrier subset (Fig.2 element AMG, AM and BAM and column 7 line 63), and means to transmit said description of said at least one respective carrier subset (Fig.2 T' and column 7 line 63).
- In regard claim 7, Reusens et al. further discloses that constellation information receiving arrangement for use in a multi-carrier transmitter or multi-carrier receiver of a multi-carrier system (Fig.1 and column 7 lines 22-28), said arrangement comprising:
 - means for receiving carrier constellation information indicative for constellations (column 8 lines 11-24 and column 10 line 9-67) where respective carriers will be modulated with by said multi-carrier transmitter (column 8 lines 60-65), and

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means for determining said constellations from said carrier constellation information (column 10 lines 1-67).

All other limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art of the instant application and Reusens et al. (US 6,351,473) as applied to claim 7 above, and further in view of Gultekin et al. (US 6,215,793).

- In regard claim 10, Reusens et al. further teaches means to receive a description of said at least one respective carrier subset (column 10 lines 1-67).

Reusens et al. teaches all limitation described in the above paragraph except specifically teaching means to interpret said description of said at least one respective carrier subset.

However, Gultekin et al. teaches means to interpret said description of said at least one respective carrier subset (column 5 lines 30-58, and column 7 lines 29-56).

It is desirable that the receiving arrangement to interpret said description of said at least one respective carrier subset in order to select a proper QAM modulation (column 5 lines 50-56) so that the communication quality is improved. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the means function as taught by Gultekin et al. in which, means to interpret said description of said at least one respective carrier subset, into the admitted prior art of the instant application and Reusens' receiver in order to select a proper QAM modulation so that the communication quality is improved.

Allowable Subject Matter

8. Claims 4, 6, 8, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

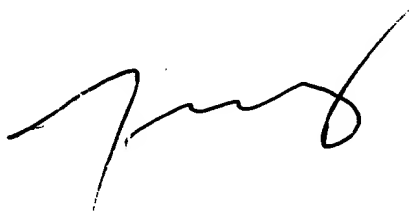
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M. Wang

A handwritten signature in black ink, appearing to be 'Ted M. Wang', written in a cursive style.

Ted M Wang
Examiner
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